

REMARKS

In the Office Action mailed on October 31, 2008, claims 1-2, 8, 12 , 26, 33, and 34 were rejected under §112; and were also rejected as obvious over Logue in view of Jones and in further view of U.S. Patent No. 6,866,458 to Farrell et al. ("Farrell"). Claims 32, 35 and 36 were rejected as obvious over Logue in view of Jones and further in view of U.S. Patent No. 3,788,185 to Gutshall. These rejections are traversed for the reasons set forth below.

A. THE OBVIOUSNESS REJECTION OF CLAIMS 1-2, 8, 12, 26, 33 AND 34 IS IMPROPER AND MUST BE WITHDRAWN

A.1 A GENERALLY HEMISPHERED SHAPED ANTI-ROTATION ELEMENT IS CAPABLE OF PENETRATING ENGAGEMENT WITH A SUBSTRATE, AND THE §112 REJECTION SHOULD BE WITHDRAWN.

Claim 1 requires anti-rotation elements that are "... configured for penetratingly engaging the substrate that the fastener is driven into ..." and that have one of a generally hemisphered shape and a generally truncated hollow cone shape. The Office Action has rejected this claim under §112 on the basis that a generally hemisphered shaped anti-rotation element does not have the ability to penetrate the substrate. It is submitted that this is incorrect as a matter of science, and therefore this rejection should be withdrawn

Attached is the declaration of Richard Ernst, the inventor and an engineer with 35 years experience in the tool and fastener industry. Mr. Ernst states that, in his

opinion, an anti-rotation element having a generally hemisphered shape is capable of penetrating engagement with a substrate as is recited in claim 1, and that a hemisphere shaped element has the ability of penetrating engagement with a substrate. Ernst Declaration, paras. 4-5. Mr. Ernst also points out that this ability can be illustrated through consideration of a bullet that has a generally hemisphere shaped end. Such bullets are able to penetrate into or through a substrate when the bullet is shot at the substrate, with example substrates including a wood substrate, a concrete substrate, a plaster or gypsum substrate, or the like. Id., para. 6. It is submitted that there are many other examples of generally hemisphere shaped elements that penetrate into or through a substrate.

For these and other reasons, claim 1 satisfies §112 and the corresponding rejection should be withdrawn.

A.2. FARRELL FAILS TO DISCLOSE A GENERALLY TRUNCATED CONE SHAPE.

Claims 1-2, 8, 12, 26, 33, and 34 were rejected as obvious over Logue in view of Jones and in further view of Farrell. Jones is cited as disclosing anti-rotation elements, but the Office Action admits they do not have the required generally hemisphere or truncated cone shape. Farrell is cited as disclosing a hollow truncated cone shape for penetrating the wall. It is submitted that this is incorrect.

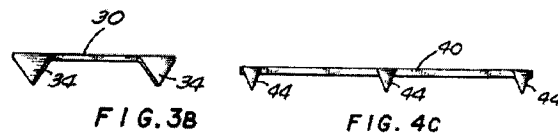
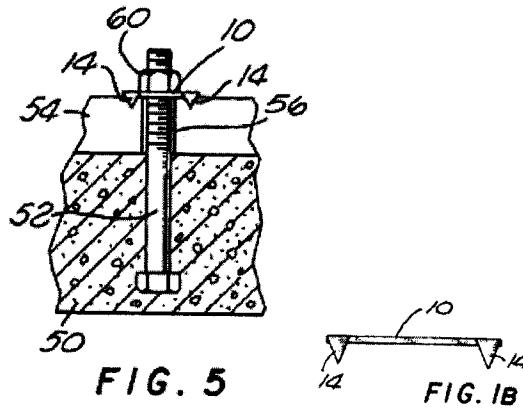
Farrell discloses a "... an aperture or opening 35 ... (and) formed about the aperture 35 a downwardly depending flange 38 ..." Col. 3, lines 53-58. The flange 38, however, is cylindrical shaped, not a truncated cone shape. See FIGS. 8, 9, 10. It is

noted that Mr. Ernst, one knowledgeable in the technology involved, has stated that the shape disclosed is cylindrical. Ernst Declaration, para. 8.

A.3 COMBINING JONES WITH FARRELL TO SUPPORT AN OBVIOUSNESS REJECTION IS IMPROPER SINCE JONES TEACHES AWAY FROM A TRUNCATED CONE SHAPE, AND SINCE JONES' THIN, SHARP POINTED GRIPPER PRONGS WOULD FAIL THEIR INTENDED PURPOSE IF THEY WERE PROVIDED A TRUNCATED CONE SHAPE.

Putting aside for the sake of argument only that Farrell fails to teach a truncated cone shape element, it is further submitted that the combination of Jones and Farrell is improper since Jones teaches it is important to have *thin, sharp pointed* gripper prongs, and the use of a truncated cone shape would be expected to lead to an increase in “crushing engagement” that Jones teaches is a problem of the prior art. Jones therefore teaches away from Farrell, and a combination of Farrell’s alleged truncated cone shape and Jones’ gripper prongs would therefore render Jones’ prongs unsatisfactory for its intended purpose. “If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.” MPEP 2143.01.V (citing *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)); see also MPEP 2141.02.

Jones teaches that its gripper prongs 14 are *thin* and “... *formed with a sharp point* ...” Col. 2, lines 58-59 (emphasis added). Each of FIGS. 5, 1B, 3B, 4C, and others likewise consistently illustrate gripper prongs 14, 34 and 44 (respectively) as having a thin, knife-like shape with sharp points:



Jones further teaches that the gripper prong thin shape and sharp points are important to the intended purpose of its invention. Jones is directed to reinforcing plates for engaging opposite sides of a wood sill (e.g., of a building frame) to provide a reinforced anchoring location for engaging an anchor bolt protruding from a concrete foundation. Abstract, Col. 2, lines 57-60. Jones teaches that frame residential houses are typically tied to their foundation by attaching a lowermost wood sill of the house frame to anchor bolts that protrude from the foundation. Col. 1, lines 8-12. In earthquake conditions, the house is held to the foundation only through attachment to these anchor bolts. Col. 1, lines 26-30. A troubling problem of the prior art occurred under earthquake conditions which caused a foundation, including anchor bolts held therein, to shift. As the anchor bolts shift they moved into direct engagement with a side edge of the hole in the wood sill that they pass through and exerted a direct load on the building's

wood sill at this side edge. Id. Such a load can cause the wood sill to split, with the building then breaking free from the foundation. Id.

Jones addresses this problem through use of reinforcing plates having *thin* gripper prongs *with sharp points* to firmly grip opposite sides of the wood sill. Summary of the Invention, Col. 1, lines 45-49. After the knife-like, thin, sharp pointed gripper prongs have passed into and gripped the wood sill, the reinforcing plate is firmly anchored to the wood sill. Summary of the Invention, Col. 2, lines 57-60. The planar reinforcing plates are provided with central openings 22 for receiving the anchor bolt embedded in the foundation. Col. 2, lines 62-66. If the anchor bolt shifts during earthquake or other conditions, the bolt will then engage the edge of the reinforcing plate opening 22 instead of the sidewall of the wood sill. Summary of the Invention, Col. 2, lines 4-30. This can be further appreciated through consideration of Fig. 7:

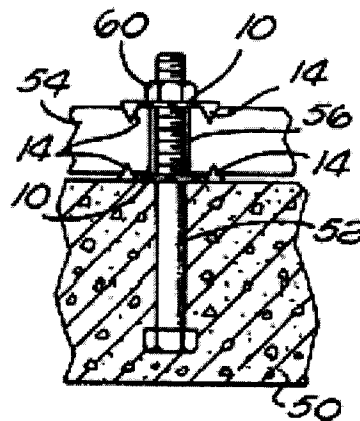


FIG. 7

Jones teaches that this configuration results in a much improved load transfer from bolt to wood that reduces risk of the wood sill splitting through direct

engagement with the anchor bolt. Col. 2, lines 18-30. Jones specifically teaches that the thin, sharp-pointed gripper prongs 14 improve over configurations that introduced “crushing” engagement with the sill:

“... the load forces are transferred to the wood sill by gripper prongs at the corners of the reinforcing plate. Standard washers need to crush down into the wood to restrain whereas the present invention does not ... since the gripper prongs transfer the load.”

Col. 4, lines 28-33.

Accordingly, the knife blade-like *thin and sharp pointed* shape of the gripper prongs of Jones are important to the intended purpose of its invention: to firmly anchor the reinforcing plate on the wood to thereby improve the transfer and distribution of the load from the anchor bolt to the wood sill and to avoid “crushing” engagement that can result using other shapes. One considering Jones would therefore not be led to combining it with a truncated cone shape allegedly disclosed by Farrell.

The truncated cone shape alleged to be disclosed by Farrell is not thin and does not have a sharp point as Jones teaches is important, and Farrell’s alleged truncated cone shape would be expected to provide reduced gripping power of the wood sill verses the sharp pointed gripper prongs 14 of Jones. Further, this shape would be expected to apply some crushing engagement on the wood sill as they were forced downward into it due to their knife-like cross-sectional width and lack of a sharp point. Jones expressly teaches away from such engagement: “(s)tandard washers need to crush down into the wood to restrain whereas the present invention does not ...” Col. 4, lines 28-33. A combination of Farrell’s alleged shape with Jones’ gripper prongs would render the prongs unfit for their intended purpose.

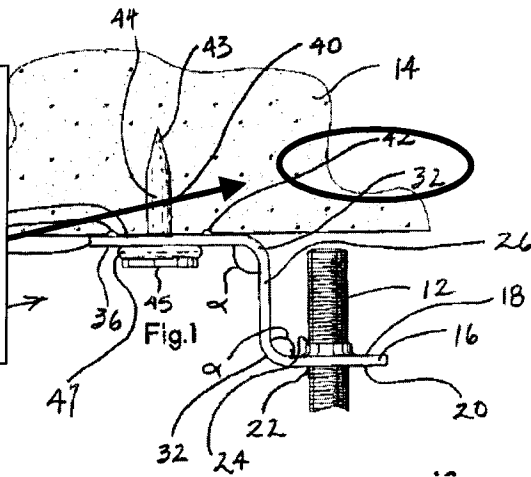
It is noted that the above conclusions are agreed to by Mr. Ernst, one skilled in the technology involved. In particular, Mr. Ernst concludes that based on the teachings of Jones, one would not consider replacing its thin, knife-like gripper prongs with a truncated cone shaped gripper prongs. Ernst Declaration, paras. 9-10.

For these reasons it is submitted that the obviousness rejection combining Jones with Farrell is improper and must be withdrawn.

A.4 JONES FAILS TO TEACH THE ANTI-ROTATION ELEMENT REQUIRED LOCATION OR ENGAGEMENT OF CLAIM 1

Putting aside the above shortcomings of the references and rejection aside for the sake of argument, claim 1 also requires, among other elements, that the anti-rotation elements are located on the “*planar ... surface configured for engaging the substrate that the fastener is driven into...*” and be configured for engaging “*the substrate that the fastener is driven into and that frictionally holds the fastener in place.*” That is, the anti-rotation elements are located on the mounting portion bracket face that engages the same substrate that frictionally holds the fastener in place, and the anti-rotation elements engage this same substrate. An example being the substrate 14 (e.g., a ceiling) as illustrated in FIG. 1 of the application:

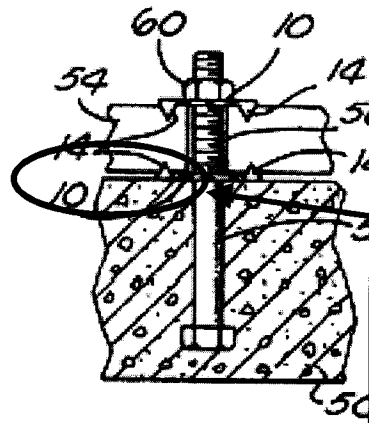
Anti-Rotation elements 42 are located on surface facing the SUBSTRATE 14 that the FASTENER 40 IS DRIVEN INTO (e.g., overhead ceiling) and engage that SUBSTRATE 14



Jones fails to disclose this claimed structure, but instead teaches that the gripper prongs 14 are useful to grip the wood sill (not the underlying foundation which holds the anchor bolt), and that the gripper prongs 14 are located on the plate surface face that engages the wood sill 54 – they are *not* located on the plate face that engages the foundation and they do *not* engage the foundation. Figure 7 of Jones is presented below for convenience of consideration, with comments provided:

Wood Sill

Foundation



Gripper Prongs are located on plate surface facing WOOD SILL and engage WOOD SILL – they are NOT located on face adjacent to FOUNDATION and they do NOT engage the FOUNDATION

FIG. 7

Accordingly, Jones discloses a different structure than what is claimed: the gripper prongs 14 are on a reinforcing plate surface that engages the wood sill 54 – this surface is *opposite from* the face that engages the foundation 50 (the substrate that holds the fastener). Further, the gripper prongs 14 do not engage the foundation 50 (the substrate that holds the fastener), but instead engage the wood sill 54 that rests on top of the substrate 50. The gripper prong location and engagement structure disclosed by Jones is therefore different from that claimed in claim 1. These are additional reasons that claim 1 is allowable over Jones.

B. THE OBVIOUSNESS REJECTION OF CLAIMS 32, 35 AND 36 IS IMPROPER AND MUST BE WITHDRAWN

Claims 32, 35 and 36 have been rejected over Logue in view of Jones and further in view of Gutshall. Claims 35 and 36 are independent, and claim 32 depends from claim 36. Each of claims 35 and 36 require at least four anti-rotation elements configured for penetratingly engaging a substrate that the fastener is driven into and that frictionally holds the fastener in place and for counteracting a moment acting upon the rod hanger as the rod is threadably received by the rod receiving portion. Logue and Jones are cited in combination to disclose these elements.

Each of claims 32, 35 and 36 additionally require a resilient cover extending over the anti-rotation elements. The Office Action admits that Logue and Jones fail to disclose this required element, but instead cites Gutshall for this. In particular, the Examiner states that “Nevertheless, Gutshall ‘185 teaches wherein a

mounting is secured by a resilient cover;” and “ ... Guttshall ‘185 discloses wherein the resilient cover is secured by a chemical bonding adhesive – a liquid bonding agent.” It is submitted that the Examiner has misinterpreted Guttshall.

Initially, it is noted that the corresponding claims do not require that a “mounting is secured by a resilient cover” as the Office Action cites Guttshall for. Guttshall does not disclose this, but even if it did this is not what is claimed and therefore the citation to Guttshall would be improper.

Additionally, careful review of Guttshall fails to disclose any fastener having a resilient cover, a resilient cover attached using a chemical adhesive, or other claimed elements of claims 32, 35 and 36. Guttshall simply discloses a fastener such as metal screw, a separate rid washer 18, and a separate resilient seal washer 30 which may be made of rubber or the like. Col. 5, lines 4-15; Col. 5, lines 26-35. As best understood, the subject invention of Guttshall operates wherein the resilient washer is deformed to seal a hole into which the fastener is driven. Summary of the Invention. Guttshall does not disclose, however, that any of its elements are covered with a resilient cover.

It is noted that Col. 8, line 42-49 teaches that the resilient washer and rigid washer may be attached to one another using a bonding agent. It is submitted, however, that this disclosure is not sufficient to meet the claimed elements. For example, claim 35 recites that: “a resilient cover formed of a polymer extending fully over said at least four anti-rotation members for enhancing the adhesion of the mounting portion with the substrate; said resilient cover secured to said anti-rotation members by one of a chemical adhesive or thermoforming.”

Finally, it is noted that the Office Action has failed to cite any particular portion of Guttshall by column, line, element number or Figure. This adds to the difficulty in understanding the Examiner's interpretation of Guttshall. Should this rejection not be withdrawn, clarification is requested as to the citation to Guttshall, including identification of particular portions of Guttshall that are being relied on.

C. NEW CLAIMS 37 – 39 ARE ALLOWABLE.

New claims 37-39 have been presented for consideration and are believed to be allowable. Claim 37 depends from claim 1 and claim 38 from claim 36. Each of claims 37 and 38 recite that the anti-rotation elements have a generally hemisphere shape. No cited reference discloses this element, with the result that claims 37 and 38 are allowable.

New claim 39 depends from claim 1 and further recites that the anti-rotation elements are formed by stamping whereby they have a closed end. This finds support in the specification in several of the FIGS., and on pages 8-9, among other locations. Putting aside the shortcomings of Farrell as discussed above, Farrell cannot be cited to support a rejection of this recitation. Farrell teaches that its element include a central aperture 35, and that it is important that the distal bottom edge 40, 50 of the flange 38 comprise a sharp cutting edge: "It is important to realize that ... (the) very sharp edge 50 which is required to readily and easily cut through paper laminate on the drywall without tearing the paper or crushing the drywall." Col. 5, lines 35-39. Farrell also teaches that the aperture within its flange 38 is desirable: "The aperture exposes a portion

of the drywall and allows a finish coat of plaster to adhere to the drywall thus allowing moisture disbursement and more even and faster drying without cracking. Col. 4, lines 2-5. Farrell therefore not only fails to disclose the claimed structure of claim 39, but teaches away from it.

D. CONCLUSION

It is submitted that all the claims in their current form are allowable over the cited prior art for at least the following reasons:

- A generally hemisphere shaped anti-rotation element is capable of penetrating engagement, as testified to by Richard Ernst, an engineer with 35 years experience in the trade. Claim 1 therefore complies with §112.
- Farrell fails to disclose a truncated cone shape.
- Farrell and Jones cannot be properly combined in an obviousness rejection since Jones teaches thin, sharp pointed gripper prongs.
- Jones fails to teach anti-rotation members that engage a substrate into which the fastener is driven and that frictionally holds the fastener in place.
- Gutshall fails to teach the recited resilient cover or other elements of claims 32, 35 and 36.

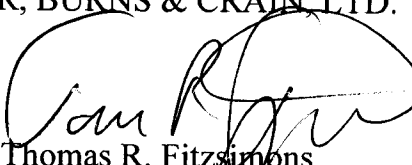
Timely consideration is requested. Should issues remain for resolution before claims can be allowed, the undersigned attorney will be pleased to discuss the same over the phone. All correspondence should continue to be directed to Applicant's primary attorney Mr. Chris Rauch at the correspondence address of record.

If a Petition under 37 C.F.R. §1.136(a) for an extension of time for response is required to make the attached response timely, it is hereby petitioned under 37 C.F.R. §1.136(a) for an extension of time for response in the above-identified application for the period required to make the attached response timely. The Commissioner is hereby authorized to charge fees which may be required to this application under 37 C.F.R. §§1.16-1.17, or credit any overpayment, to Deposit Account No. 07-2069.

Respectfully submitted,

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By


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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re U.S. Application of:)
)
Applicant(s): Richard J. Ernst)
)
Serial No.: 10/687,451)
)
Conf. No.: 8743)
)
Filed: October 16, 2003)
)
For: ROD HANGER FOR)
SECURING A ROD TO A)
SUBSTRATE)
)
Art Unit: 3632)
)
Examiner: Epps, Todd Michael)

DECLARATION OF RICHARD J. ERNST UNDER 37 C.F.R. § 1.132

I, Richard J. Ernst, 5593 Havenridge Way, San Diego, CA 92130,
declare as follows:

1. My educational background includes a B.S. in Industrial Engineering from Illinois Institute of Technology in 1964. I am currently an Engineering Manager for ITW Brands, a division of Illinois Tool Works, Glenview, Illinois, and have been an Engineer in the tool and fastener industry for over 35 years. I am knowledgeable concerning the field of mechanical and industrial engineering and fasteners.

2. I am the inventor of U.S. Patent Application No. 10/687,451 (“the ‘451 Application”), and I invented the invention described therein and claimed in at least claims 1-2, 8, 12, 26, 33 and 34.

3. I understand that claim 1 presently stands rejected on the basis that it is not clearly understood how an anti-rotation element with a generally hemisphered shape can be configured for penetrating engagement of a substrate. I understand that current rejection of claim 1 states that a hemisphered shape does not have the ability of penetrating engagement with a substrate.

4. In my opinion, an anti-rotation element having a generally hemisphered shape is capable of penetrating engagement with a substrate as is recited in claim 1.

5. In my opinion, a hemisphere shaped element has the ability of penetrating engagement with a substrate.

6. The ability of a generally hemisphere shaped element to penetrate into or through a substrate may be illustrated through consideration of a bullet that has a generally hemisphere shaped end. Such bullets are able to penetrate into or through a substrate when the bullet is shot at the substrate, with example substrates including a wood substrate, a concrete substrate, a plaster or gypsum substrate, or the like.

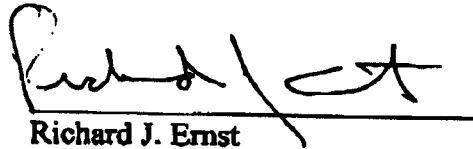
7. I have reviewed US Patent No. 5,546,723 to Jones (“the Jones patent”) and US Patent No. 6,866,458 to Farrell (“the Farrell patent.”).

8. In my opinion, the flange 38 disclosed by the Farrell patent is cylindrical shaped, and would not be characterized as having a truncated cone shape.

9. In my opinion, the gripper prongs taught by the Jones patent have a thin, knife-blade like shape with a sharp point. In my opinion, the Jones patent teaches that this particular shape is desirable and very useful for the particular application disclosed – transferring a load from a building anchor bolt to a reinforcing plate under conditions such as an earthquake. I understand the Jones patent to teach that the thin, sharp pointed gripper prong shape is advantageous since it avoids crushing engagement that might otherwise result with different shapes.

10. In my opinion, one knowledgeable in the technology involved would not consider replacing the thin, knife-blade like gripper prongs disclosed by the Jones patent with elements having a truncated cone shape since the use of such elements may lead to an increase in crushing engagement with an underlying wood sill that the Jones patent teaches is undesirable.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.


Richard J. Ernst

2/26/09
Date